

Claim 13 (amended, clean version)

The vehicular mirror assembly of Claim 11 wherein said second curved section has a continuously varying radius of curvature.

AS
Claim 14 (amended, clean version)

The vehicular mirror assembly of Claim 13 wherein said second curved section has a varying height.

AP
Claim 17 (amended, clean version)

The vehicular mirror assembly of claim 15 wherein said vehicular mirror assembly has a generally elliptical cross sectional area.

REMARKS

Applicants' undersigned attorney thanks the Examiner for a kind and thorough review of the Application. The Examiner objected to the specification due to inadequate margins. A substitute specification is provided herewith, pursuant to 37 C.F.R. 1.125(a). The substitute specification contains only subject matter from the original specification.

The Examiner rejected claims 1 - 20. Particularly, the Examiner rejected claims 1, 2, 5, 6 and 11 - 14 under 35 U.S.C. §102(b) as being anticipated by United States Patent No. 4,264,144 of McCord ("McCord"); rejected claims 3, 7 and 16 - 20 under §103(a) as being obvious in view of the combination of McCord and U.S. Patent No. 4,245,894 of Luchtenberg ("Luchtenberg"); and rejected claims 4, 8, 9 and 15 under §103(a) as being obvious in view of the combination of

McCord and U.S. Patent No. 5,579,133 of Black et al. ("Black").

Applicants have cancelled claims 7, 12 and 16 and have amended independent claims 1, 3, 5 and 11 to better describe the novel features of Applicants' invention which are not present in the prior art. Particularly, Applicants' have amended the claims to clarify that the mirror of the present invention is externally mounted to the vehicle and includes a curved portion which is disposed closer to the vehicle than the planar portion. This unique arrangement provides important advantages prior art mirrors which utilize a convex portion which is disposed at the **outermost section of the mirror**. The drawbacks of this type of arrangement are explained by Applicants on page 3 of the specification:

[T]his prior mirror configuration undesirably makes the displayed objects appear to be a certain and inaccurate distance from the vehicle, thereby undesirably causing confusion and distraction, especially as the vehicle is maneuvered from one lane to another.

(Id. at page 3, lines 6 - 12). In contrast, Applicants' novel configuration, in which the convex mirror portion is disposed proximate to the vehicle and the planar portion is disposed "outside of" the convex portion, provides significant advantages. Particularly, as explained by Applicants:

It should be realized that the placement of convex portion 18 proximate to the vehicle 10 **substantially eliminates the typical blind spot and that the outwardly extending and generally planar portion 16 allows for the acquisition and display of images of objects and/or portions of the vehicular ambient environment which reside and/or "lie" outside of the typical blind spot area but which are nonetheless relatively close to the vehicle 10.**

(Id. at page 8, lines 6 - 14)(emphasis added).

Moreover, Applicants have further amended each of the independent claims (i.e., claims 1, 5 and 11) to clarify that the curved portion or section is divided into two regions or portions, a first region which provides a false measure of distance (i.e., the region closer to the vehicle) and a second region which provides a substantially true measure of distance (i.e., the region adjacent

to the planar portion). This feature is discussed on pages 8 and 9 of the specification. None of the prior art of reference disclose such a feature. Additionally, independent claims 5 and 11 have been amended to clarify that the score line is disposed **within** the curved portion of the mirror and separates the first and second regions of the curved portion. In Luchtenberg, the score line is **not disposed within the curved portion of the mirror**, but is rather disposed between the curved portion and the planar portion.

Because the foregoing elements are not taught by any of the prior art, amended independent claims 1, 5 and 11, and all claims depending from those claims cannot be anticipated nor rendered obvious, as explained more fully and completely below.

McCord

Claims 1, 2, 5, 6 and 10 - 14 were rejected as unpatentable over McCord under §102(b). As amended, independent claims 1, 5 and 11 (and all claims respectively depending from claims 1, 5 and 11) cannot be anticipated nor rendered obvious in view of McCord, as they contain limitations which are entirely missing from McCord. Particularly, claims 1, 5 and 11 have been amended to clarify that the mirror is externally mounted to the vehicle and that **the curved portion of the mirror is disposed in closer proximity to the vehicle than the planar portion and includes two separate regions or portions (i.e., one which provides a substantially true measure of distance and one which provides a false measure of distance)**. The only discussion of an externally mounted vehicular mirror in McCord is made in reference to Figures 9 and 10. (McCord, column 3, lines 47 - 51). While Figures 9 and 10 of McCord do illustrate an mirror for external vehicle use having a curved section and a planar section, there is **no** disclosure or teaching of how the mirror is to be oriented or positioned relative to the vehicle. The only logical presumption is that Figure 10 is a driver-side externally mounted mirror, and is

therefore, a prior art mirror of the type discussed by Applicants on page 3 of the specification. That is, Applicants have discussed this particular arrangement (i.e., an externally mounted mirror with a curved section at the outermost portion of the mirror) and its drawbacks. Specifically, Applicants explained:

[T]his prior mirror configuration undesirably makes the displayed objects appear to be a certain and inaccurate distance from the vehicle, thereby undesirably causing confusion and distraction, especially as the vehicle is maneuvered from one lane to another.

(Pending Application at page 3, lines 1 - 12). Applicants' novel arrangement (i.e., with the convex portion of the mirror disposed closer to the vehicle than the planar portion of the mirror) is not disclosed in McCord and provides significant advantages of the prior art arrangement. As explained by Applicants:

It should be realized that the placement of convex portion 18 proximate to the vehicle 10 substantially eliminates the typical blind spot and that the outwardly extending and generally planar portion 16 allows for the acquisition and display of images of objects and/or portions of the vehicular ambient environment which reside and/or "lie" outside of the typical blind spot area but which are nonetheless relatively close to the vehicle 10.

(Id. at page 8, lines 6 - 14)(emphasis added). Due to this novel element, which is not present in McCord, and which provides unique and significant advantages over the prior art, amended claims 1, 5 and 11 (and all claims depending from those claims) cannot be anticipated nor rendered obvious by McCord.

Moreover, McCord does not teach or disclose a mirror having a curved portion which has two separate regions - i.e., a region which provides a substantially true measure of distance and a region which provides a false measure of distance. This unique feature is discussed by Applicants' on pages 7 - 9 of the specification, and allows the curved portion of the mirror to both eliminate the vehicle's blind spot and offer a desired and relatively wide viewing range including a significant range having a substantially "true" measure of distance. In prior mirrors,

such as the mirror of McCord, only the planar portion was capable of providing substantially "true" measures of distance. Due to this additional novel element, amended claims 1, 5 and 11 (and all claims depending from those claims) **cannot** be anticipated nor rendered obvious by McCord.

Additionally, claims 5 and 11 (and all claims respectively depending from those claims) are independently patentable over McCord, as McCord does not disclose nor suggest the use of a score line disposed within the curved portion of the mirror for separating the first and second regions of the curved portion. This novel element is discussed on pages 7 - 9 of the specification and provides a user of the mirror assembly with a simple and easy way to determine which images in the mirror have a substantially true measurement of distance, and which do not. Because this element is completely missing from McCord, McCord cannot anticipate nor render obvious claims 5 and 11 (and all claims respectively depending from those claims).

For all of these reasons, it is respectfully asserted that claims 1 - 6, 8 - 11, 13 - 15 and 17 - 20 are patentable over McCord.

The Combination of McCord and Luchtenberg

Claims 3, 7 and 16 - 20 have been rejected under §103(a) as being unpatentable over the combination of McCord and Luchtenberg. As amended, independent claims 1, 5 and 11 contain limitations that are not disclosed in either reference, and thus, the combination of the two references cannot render obvious any of claims 1 - 6, 8 - 11, 13 - 15 and 17 - 20.

As amended, each of independent claims 1, 5 and 11 include limitations which are not found in either McCord and Luchtenberg. Particularly, claims 1, 5 and 11 have been amended to clarify that the mirror is externally mounted to the vehicle and that **the curved portion of the mirror is disposed in closer proximity to the vehicle than the planar portion and includes**

two separate regions or portions (i.e., one which provides a substantially true measure of distance and one which provides a false measure of distance). As previously discussed, these critical features are not disclosed by McCord. Likewise, Luchtenberg also fails to disclose these novel elements. While Luchtenberg discloses an external mirror for a vehicle having a curved section and a planar section, Luchtenberg expressly and specifically teaches away from Applicants' novel arrangement and discloses only the inferior prior art arrangement, in which the curved section is disposed at the outermost end of the mirror. Specifically, Luchtenberg teaches that the section of the mirror which may be convex is the "section furthest away from a vehicle." (Luchtenberg at column 2, lines 32 - 37)(emphasis added). Applicants have discussed this prior art arrangement and its drawbacks on page 3, lines 1 - 12 of the specification:

[T]his prior mirror configuration undesirably makes the displayed objects appear to be a certain and inaccurate distance from the vehicle, thereby undesirably causing confusion and distraction, especially as the vehicle is maneuvered from one lane to another.

Applicants' novel arrangement (i.e., with the convex portion of the mirror disposed closer to the vehicle than the planar portion of the mirror) is not disclosed in McCord or Luchtenberg and provides significant advantages of the prior art arrangement, as set forth above. Because this novel element is entirely missing from the combination of Luchtenberg and McCord, amended claims 1, 5 and 11 (and all claims depending from those claims) **cannot** be anticipated nor rendered obvious by the combination.

Furthermore, Luchtenberg does not teach or disclose a mirror having a curved portion which has two separate regions - i.e., a region which provides a substantially true measure of distance and a region which provides a false measure of distance. This unique feature is discussed by Applicants' on pages 7 - 9 of the specification, and allows the curved portion of the mirror to both eliminate the vehicle's blind spot and offer a desired and relatively wide viewing

range including a significant range having a substantially "true" measure of distance. In prior mirrors, such as the mirrors of Luchtenberg and McCord, only the planar portion was capable of providing substantially "true" measures of distance. Due to this additional novel element which is missing from both Luchtenberg and McCord, amended claims 1, 5 and 11 (and all claims depending from those claims) **cannot** be rendered obvious by combination of Luchtenberg and McCord.

Additionally, claims 5 and 11 (and all claims respectively depending from those claims) are independently patentable over Luchtenberg, as Luchtenberg does not disclose nor suggest the use of a score line which is disposed **within** the convex portion of the mirror for separating the first and second regions of the convex portion. This novel element is discussed on pages 7 - 9 of the specification and provides a user of the mirror assembly with a simple and easy way to determine which images in the mirror have a substantially true measurement of distance, and which do not. In contrast, Luchtenberg teaches to dispose the score line 13 **between** the convex portion 11 and planar portion 10 of the mirror. That is, in Luchtenberg, the portions 11 and 10 **"come together at a well-defined kink line 13."** (Luchtenberg at column 2, lines 37 - 39)(emphasis added). Because Luchtenberg and McCord do not disclose disposing a score line **within** the convex portion of the mirror, the combination cannot render obvious claims 5 and 11 (or any claims respectively depending from those claims).

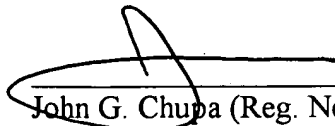
The Combination of McCord and Black

Claims 4, 8 9 and 15 have been rejected under §103(a) as being unpatentable over the combination of McCord and Black. As amended, independent claims 1, 5 and 11 contain limitations that are not disclosed in either reference, and thus, the combination of the two references cannot render obvious any of claims 1 - 6, 8 - 11, 13 - 15 and 17 - 20.

As amended, each of independent claims 1, 5 and 11 include limitations which are not found in either McCord or Black. Particularly, claims 1, 5 and 11 have been amended to clarify that the mirror is externally mounted to the vehicle and that **the curved portion of the mirror is disposed in closer proximity to the vehicle than the planar portion and includes two separate regions or portions (i.e., one which provides a substantially true measure of distance and one which provides a false measure of distance)**. As previously discussed, these critical features are not disclosed by McCord. Likewise, Black also fails to disclose these novel elements. In fact, the mirrors disclosed in Black have **no** curved portions at all. Rather, in Black, both the primary mirror 27 and the attachment 30 are **"flat or planar mirrors."** (Black at column 4, lines 10 - 18)(emphasis added). Because Black discusses only flat mirrors, none of the above-delineated elements are disclosed by Black. Because these elements are entirely missing from Black and McCord, the combination cannot render obvious any of claims 1, 5 and 11 (or any claims respectively depending from those claims).

For all of these reasons, Applicants' undersigned attorney respectfully asserts that all of the pending claims 1 - 6, 8 - 11, 13 - 15 and 17 - 20 are patentable and are in condition for allowance. Such allowance is respectfully requested. If the Examiner has any further questions regarding this matter, she is invited to call Applicants' undersigned attorney at (248) 865-9588.

Respectfully submitted,


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MARKED-UP VERSIONS OF AMENDED CLAIMS

Claim 1 (amended, marked-up version)

A vehicular mirror for use with a vehicle and which is mounted to the exterior of said vehicle, said vehicular mirror comprising a first substantially planar portion and a second curved portion which is disposed in closer proximity to the vehicle than said planar portion, and which includes a first region which provides a false measure of distance, and a second region which is disposed between said first region and said first substantially planar portion and which provides a substantially true measure of distance.

Claim 3 (amended, marked-up version)

The vehicular mirror of Claim 2 wherein said vehicular mirror includes a score line which is disposed within said second curved portion and which separates said first region from said second region.

Claim 5 (amended, marked-up version)

A vehicular mirror for use with a vehicle and mounted to the exterior of said vehicle, said vehicular mirror comprising a first generally planar portion and a second curved portion which is disposed in closer proximity to the vehicle than said first generally planar portion, and which includes a first region which provides a false measure of distance, a second region which provides a substantially true measure of distance and a score line which separates said first and second regions, and wherein said second curved portion has a varying radius of curvature.

Claim 11 (amended, marked-up version)

A vehicular mirror assembly for use with a vehicle and which is mounted to the exterior of said vehicle, said vehicular mirror assembly comprising a first generally planar section and a second curved section which is disposed between said first generally planar section and said vehicle and which includes a first portion which is proximate to said vehicle and which provides a first image of an object having a false measure of distance, [and] a second portion which provides a second image of a second object having a substantially true measure of distance, and a score line which separates said first and second portions.

Claim 13 (amended, marked-up version)

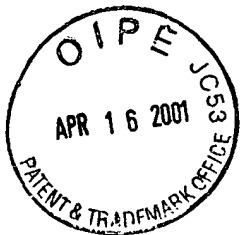
The vehicular mirror assembly of Claim [12] 11 wherein said [first portion] second curved section has a continuously varying radius of curvature.

Claim 14 (amended, marked-up version)

The vehicular mirror assembly of Claim 13 wherein said [first portion] second curved section has a varying height.

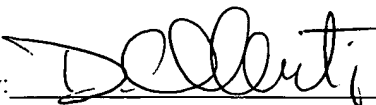
Claim 17 (amended, clean version)

The vehicular mirror assembly of claim [16] 15 wherein said vehicular mirror assembly has a generally elliptical cross sectional area.



CERTIFICATE OF MAILING UNDER 37 C.F.R. 1.8

I hereby certify that the enclosed Response to Office Action and Petition for Extension of Time is being deposited with the United States Postal Service in an envelope as First Class Mail addressed to the Assistant Commissioner for Patents and Trademarks, Washington, DC 20231 on this 10th day of April 2001.

By: 

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